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### (54) Title: A METHOD FOR INCREASING SYNAPTIC GROWTH OR PLASTICITY

(57) Abstract: The present invention relates to a method of modulating synaptic growth or plasticity by increasing the expression of genes found to be induced by BNDF. Such genes include c-fos proto-oncogene, early growth response protein 1, activity-regulated cytoskeletal associated, fos-related antigen 2, G1/S-specific cyclin D1, voltagegated potassium channel protein, sodium channel beta 1 subunit, secretogranin II precursor, somatostatin receptor 4, transmembrane receptor UNC5 homology, neuropeptide Y, VGF protein precursor and protein-tyrosine phosphatase 1B. Methods of identifying agents which modulate the expression of these genes and the use of such agents for treating a disease or condition associated with damaged or diseased synapses are also provided.